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11 December 1980

Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 142

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NEW SUBMARINE CABLE TO LINK PACIFIC NATIONS, CANADA

Call for Bids Issued

Wellington THE EVENING POST in English 29 Sep 80 p 12

/Text/

A new transpacific submarine cable system came a step closer to completion with the world-wide calling of tenders for the design, manufacture and installation of the cable system.

The new cable — known as the Anzcan Cable — is intended to link New Zealand, Australia, Norfolk Island, Fiji, Hawaii and Canada. It is expected to cost over $300,000,000.

The chairman of Anzcan Cable, Mr D Rose, said that the cable would rank among the largest single international telecommunications projects ever undertaken.

He said the cable system, comprising over 1000 telephone circuits, would be designed to carry rapidly expanding traffic both within the Pacific basin and between Asia, Europe and the Pacific basin through the use of interconnecting facilities.

Tenderers will have until February 16 1981 to prepare their submissions before evaluation starts.

Security Considerations

Auckland THE NEW ZEALAND HERALD in English 3 Nov 80 p 4

/Text/

NZPA London

The security of the country has been put forward as a major reason for New Zealand opting for the alternative of a submarine telephone network as against a satellite system.

"New Zealand must look at submarine systems as well as satellite systems for communication," said a spokesman for Standard Telecommunication Systems.

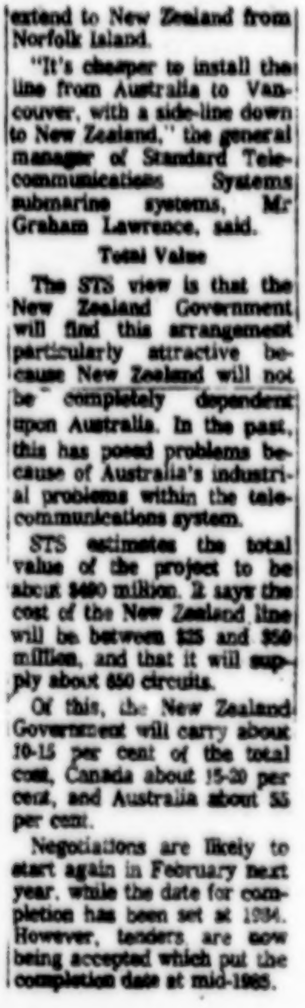
"This is not simply a matter of cost, but of national security. If any country cut out the satellite system, where would New Zealand be?"

New Line

STS is one of the companies bidding for a share of the action in the "Anzcan" contract, said to be the largest ever single cable system order.

The Anzcan system will cover an 8000 nautical mile route from Canada to Australia and New Zealand, and when completed will carry nearly 2000 telephone circuits.

The new line will replace existing circuits installed 20 years ago, and will run from Sydney through Norfolk Island, Fiji and Hawaii, to Vancouver. A direct line will



extend to New Zealand from Norfolk Island.

"It's cheaper to install the line from Australia to Vancouver, with a side-line down to New Zealand," the general manager of Standard Telecommunications Systems submarine systems, Mr Graham Lawrence, said.

Total Value

The STS view is that the New Zealand Government will find this arrangement particularly attractive because New Zealand will not be completely dependent upon Australia. In the past, this has posed problems because of Australia's industrial problems within the telecommunications system.

STS estimates the total value of the project to be about $480 million. It says the cost of the New Zealand line will be between $25 and $50 million, and that it will supply about 850 circuits.

Of this, the New Zealand Government will carry about 10-15 per cent of the total cost, Canada about 15-20 per cent, and Australia about 55 per cent.

Negotiations are likely to start again in February next year, while the date for completion has been set at 1984. However, tenders are now being accepted which put the completion date at mid-1985.

CSO: 5500

BRIEFS

UNDERSEA COMMUNICATIONS SYSTEM OPENS--Tokyo, 28 Nov KYODO--Ceremonies marking the opening of an undersea communication cable system linking Japan and South Korea were held in Tokyo and Seoul Friday morning. The 280-kilometer cable connects Hamada, a city in Shimane Prefecture facing the Sea of Japan, with Pusan in South Korea. The cable was laid 70 centimeters below the seabed at a cost of some yen 5.5 billion under an agreement concluded between Japan and South Korea in June 1978. The new cable system has a capacity equal to 2,700 phone circuits, resulting in a drastic improvement in communication between the two countries. Up to now, Japan and South Korea was linked by the 384-circuit scatter communications system. The ceremony in Tokyo was held at the Hotel Okura and that in Seoul at the Sejong Cultural Center. During the ceremony, Ichiro Yamanouchi, posts and telecommunications minister, exchanged greetings with South Korean Communications Minister Kim Ki-chol. [Text] [OW280309 Tokyo KYODO in English 0238 GMT 28 Nov 80]

'ANTARA'-'PTI' SATELLITE LINK ESTABLISHED--New Delhi, 27 Nov (AFP)--The Indian News Agency PTI and the Indonesian News Agency ANTARA have begun exchanging news on a direct 24-hour satellite circuit, PTI announced today. The link is the first of its kind established between India and Southeast Asia, the agency said. It added that the link was part of PTI's programme of expansion of its foreign service as well as the non-aligned news pool operations. PTI recently signed a contract with the New China News Agency, XINHUA, in Beijing for exchange of the news services. [Text] [BK271430 Hong Kong AFP in English 1302 GMT 27 Nov 80]

CSO: 5500

FUTURE OF CABLE, SATELLITE-ASSISTED TV DISCUSSED

Sydney THE SYDNEY MORNING HERALD in English 20 Oct 80 p 11

[Text] The broadcasting industry had been left in some confusion by the Federal Government, the chairman of directors of John Fairfax Ltd, Mr J. O. Fairfax, said yesterday.

In the opening speech at the Australian Association of National Advertisers' 1980 convention at Surfers Paradise, Mr Fairfax said the Australian Broadcasting Tribunal was about to hold an inquiry into the introduction of cable and pay television.

"Yet only a week ago the minister announced that supplementary licences would be granted to regional television stations and that these new channels could be used for pay or subscription television, which frankly seems to me to be preempting the tribunal's inquiry," Mr Fairfax said.

"Such a use when combined with satellite transmission could open up some dramatic possibilities.

"It must be hoped that the inquiry gives detailed consideration to the extent of the demand for cable services, what they will cost, and the claims to some participation from present broadcast operators.

"But as far as Australia is concerned, the most significant influence in the 80s will be exercised by the domestic satellite, due to be available in the latter half of the decade.

"It is clear when this satellite system becomes available the private sector will be one of its major users, if not the major user."

Mr Fairburn said that while he applauded the Prime Minister's statement that private enterprise should have a minority stake in the satellite, it was not clear how the stake would be accommodated.

"I believe it important that all interested private enterprise, including all television operators, should have equal access to the satellite, and I hope the Prime Minister's statement can be taken as confirmation of this point," Mr Fairfax said.

"The advent of the domestic satellite will have profund influence on the television media. The private ownership and convenient location of ground transmitting and receiving stations open up many possibilities for program, sport and news exchange, and development of networking.

"Private enterprise, emerging as one of the major users of the first generation system, must be allowed to develop in an environment free of bureaucratic restriction while recognising the necessity for ensuring orderly control without monopoly of the spectrum and resources available.

Mr Fairfax said John Fairfax Ltd took action last year to preserve competition within the industry.

"When News Ltd attempted a takeover of the HERALD and WEEKLY TIMES we acted to help preserve its independence, as did Queensland Newspapers--and not least continued press competition in Adelaid, Brisbane and Perth," he said.

CSO: 5500

SATELLITE USED TO KEEP TRACK OF WHEAT CROP

Sydney THE SYDNEY MORNING HERALD in English 20 Oct 80 p 11

[Article by Andrew Stone: "Sky Spy To Keep Tabs on Wheat"]

[Text] A satellite, 950 kilometres overhead, traces across NSW and records the edges of the wheat belt.

It flashes a signal which is picked up by a tracking station at Alice Springs.

Converted on to tape and taken to the Australian Landsat Station at Canberra, the messages are unscrambled by computers and picture images.

And 10 days later in Sydney, the Grain Elevators Board of NSW decides on the basis of this high-altitude surveillance that it will not need as many grain waggons in the western region.

This imaginary sequence was outlined yesterday by Mr Eric Leggett, a specialist in remote sensing with the NSW Department of Agriculture.

Mr Leggett said the completion of the Canberra Landsat station last week marked an important step forward in the satellite program.

Previously, participants in the program had to wait until information was sent from the United States, which took at least six weeks.

Participants, including government departments, planning agencies and mining companies would now have access to data in 10 days.

Mr Leggett said Landsat would be valuable for estimating crop areas and production and allow the patterns of land use to be followed.

The satellite passed over the same spot every 18 days, allowing changes and growth of a crop to be monitored.

"This will be extremely valuable to the wheat industry," he said "If the State's grain-handling agency knew how the crop was going, it could marshal grain waggons and know exactly where it was with its storage system." The Department of Lands will handle information from the satellite in Sydney.

CSO: 5500

PLUG-IN FM PAGING SYSTEM ON THE MARKET

Canberra THE FINANCIAL AUSTRALIAN in English 20 Oct 80 p 7

[Text] A new plug-in FM paging system, claimed to be the latest development of space technology, is now available in Australia.

Called Telecourier 800, it is a highly functional Swedish system designed for direct and discreet communications by either voice or bleep.

Allan Electronics and the FFE Group, who are marketing the unit in Australia, claim it is ideal for both large and small business applications.

Three variations of Telecourier 800 are available, depending on the range involved and the facilities provided.

It is anticipated that the system "800M" which is designed for direct paging to personnel where the total area to be covered is relatively limited, will be the biggest market, mainly because there is no elaborate or costly installation.

The unit can be just plugged in and used.

The system is installation-free because of a built-in one watt transmitter and a detachable rubber antenna.

FM provides clearer reproduction of all signals with no distortion.

Incorporating microprocessors as its "electronic brain" the unit's sleek keyboard, compact size and light weight is said to give a real advantage to the operator with restricted workspace.

The 800M's keyboard pages one receiver at a time and has a standard capacity of 30 receivers, but can be extended to cover 100 as an option.

Eleven different bleep messages are available. Each paging is repeated automatically three times, but can also be pre-set to repeat from one to 255 times if required.

Group calls can also be activated with this unit, which is specially designed for office situations where personnel moving from one area to another can still be directly contacted.

Anyone within a three-storey building complex can receive either voice or bleep messages.

The paging receiver is slim and shaped to fit into the breast pocket. The reversable clip enables it to be carried in the waistband while retaining the full display functions of the receiver.

When the life of the battery expires, the carrier of the receiver is told automatically.

Charging contacts for receivers with re-chargeable batteries swiftly send an absent indication signal to the keyboard when inserted in the charging rack.

To cover large area FFE and Allan Electronics can offer a bigger Telecourier system called the 800C. This is powered by a 5 watt transmitter giving wider coverage and more paging possibilities--up to 1000 receivers--although the keyboard remains the same size. [paragraph as published]

Any selection of call numbers can be programmed under each key; for example, a group of doctors, a fire fighting team or simply any frequently paged person.

The emergency signal is then sent until cancelled and of course does not disturb normal paging. If required, these preselected group pagings can be started automatically. For example, by connecting one of the keys to a fire alarm system, the entire fire fighting team will be paged automatically in the event of a fire.

CSO: 5500

PHILIPS AWAITS TELECOM OK FOR NEW TELEX SYSTEM

Canberra THE FINANCIAL AUSTRALIAN in English 20 Oct 80 p 2

[Text] "Changing the face of telex while simutaneously laying the foundations for the 'automated office communication networks' of the 1980s."

That's the modest assignment set for a new communications control system, according to Mr Claude Fosseprez, director of Philips Telecommunicate Industrie BV of the Netherlands.

"Despite the world-wide reach and international standardisation of telex, many firms have tended to shy away from telex when modernising their non-voice communications facilities, given the choice of greatly expanding their communications department or financing an expensive computer-based switch."

The new DSX-40, according to Philips, has been an answer to this dilemma.

It is a highly sophisticated "office communications controller"--a computer for telex, text and data traffic.

With the advent of the microprocessor, the unit is affordable, and in terms of office productivity should make advances comparable to those of the small business computer or the telephone PABX.

Earlier this year, Philips sold 30 DSX-40 switching systems to the Swedish Telecommunications Administration (STA) in a $2 million contract.

The company is waiting for the unit to be approved by Telecom for use in Australia. According to a spokesman, the company is ready for local release and doesn't expect any problems in getting Telecom approval.

Advantages

"As an established supplier of large-scale telecommunications computers to multinational corporations, as well as to common and specialised carriers, Philips has long been aware of the advantages which systems of this kind could bring to office communication," Mr Fosseprez said.

"However, it has only been with the development of microprocessors, sufficiently powerful, inexpensive and reliable, that the in-house, non-voice switching system has been economically justifiable for the average firm."

As with a voice PABX, the Philips system concentrates the traffic of terminals connected to it, switching calls automatically on an as-needed basis.

Unlike voice traffic, however, telex messages, as well as text and many forms of data, are generally time-insensitive, and do not require transmission in real-time on a circuit-switched basis.

Accordingly, the DSX-40 operates on store-and-forward principles--messages are accepted, stored, manipulated and forwarded automatically--providing increases in the levels of terminal availability and circuit utilization, and totally revising traditional ideas of telex transmission.

The DSX-40 is typically associated with the use of modern office teleprinters. In a representative 40-line configuration, these user terminals will be dispersed throughout an organisation (usually at secretarial work stations) and linked directly to the switching system via 50 to 300 BPS connections. Remote locations, such as branch offices, may be connected to the system via leased lines.

While the primary application of the DCX-40 will be store-and-forward switching of time-intensive information such as administrative messages and memos, the system also supports a circuit-switched "dialog" mode of operation. [as published]

This permits real-time communication between user terminals' subscribers on the public telex networks, enabling firms to conduct financial and other traditionally "on-line" transactions via the DSX-40.

In contrast with the personnel requirements of the conventional telex room, which is becoming increasingly difficult to staff, the DSX-40 needs only a single system supervisor (usually an experienced telex operator with a one-week training course on the system).

The supervisor, who is responsible for providing occasional manual help to users, entering system commands, requesting reports, and general monitoring of system conditions, need not be present at all times.

Messages can be transmitted in unattended mode, at night for example, to take advantage of the lower tariffs offered in certain countries during non-office hours.

Routine procedures which in the past have been performed manually--locating telex codes, dialling, redialling busy numbers, verifying answer-back codes, logging and so on--are all executed accurately at high speed by the DSX-40.

CSO: 5500

TREND TOWARD GREATER CENTRAL CONTROL OF BROADCASTING

Canberra THE FINANCIAL AUSTRALIAN in English 20 Oct 80 p 10

[Article by Linda Gray: "Fairfax Hits Media Control"]

[Text] There is a disturbing trend towards greater control of the broadcast media which should be of more concern, according to the chairman of John Fairfax Ltd.

Mr James Fairfax said this when addressing the 700 representatives of the media and the advertising and marketing industries gathered in Surfers Paradise for the Australian Association of National Advertisers Convention.

"There is a movement abroad in the community for greater freedom and access of information for the press. But there is no similar movement taking place on behalf of the broadcast industry."

Mr Fairfax said the broadcasting industry was and would continue to be in a state of confusion while there was no clearly defined government philosophy on the electronic media.

Mr Fairfax also admitted there was some truth in the fact that media oligopolies existed, but that these were formed as economic forces and they were not confined solely to media interests.

Defending Fairfax's extension of its own media interests in the recent share battle with News Ltd for control of the HERALD AND WEEKLY TIMES group, Mr Fairfax said the company had acted "to preserve the independence" of the HWT and if it had not done so 75 per cent of the country's significant newspapers would have been controlled by News Ltd.

This was as close as the chairman of Fairfax would come to addressing the question of the probable investigation by the Australian Broadcasting Tribunal of the group's holdings in HWT.

CSO: 5500

HOME TV, COMPUTERS TO BE LINKED IN DATA SYSTEM

Brisbane THE COURIER-MAIL in English 21 Oct 80 p 3

[Text] Telecom is investigating a system that will link TV screens and computers in a huge information network.

The system, called Videotex, links TV screens through an ordinary telephone line into the computer information system.

Modern TV sets can key into the system using an attachment that next year should cost between $200 and $300.

This would allow business and home TV screens to be used to read the news, theatre guides, advertisements, on encyclopaedia, stock market details, foreign exchange rates, and just about any other accessible, desired information.

Last night, Telecom manager Videotex marketing, Mr Scott Sanderson, demonstrated the system to Brisbane businessmen and women.

"There is no proposal to the commission, or the minister, but we are actively investigating establishing a system in Australia," he said.

Mr Sanderson demonstrated the possibilities with a system linked to the British "Prestel" operation, which has more than 150,000 pages of information stored.

He demonstrated how to book a hotel in Saudia Arabia without leaving your TV screen, and keyed up news on the Australian election provided free by the BIRMINGHAM POST and MAIL NEWSPAPER group, and showed quotations of Australian stocks in London, as well as looking at yachts for sale there.

There is a small charge for most of the information.

"The system has been in operation for 18 months in England and is available to the public. There are 6000 subscribers, and almost all are in business," Mr Sanderson said.

If the operation started in Australia he expected it would be used mostly by business, with the travel industry playing a large role. "I believe it would be about five years before there are big numbers of domestic users," he said.

CSO: 5500

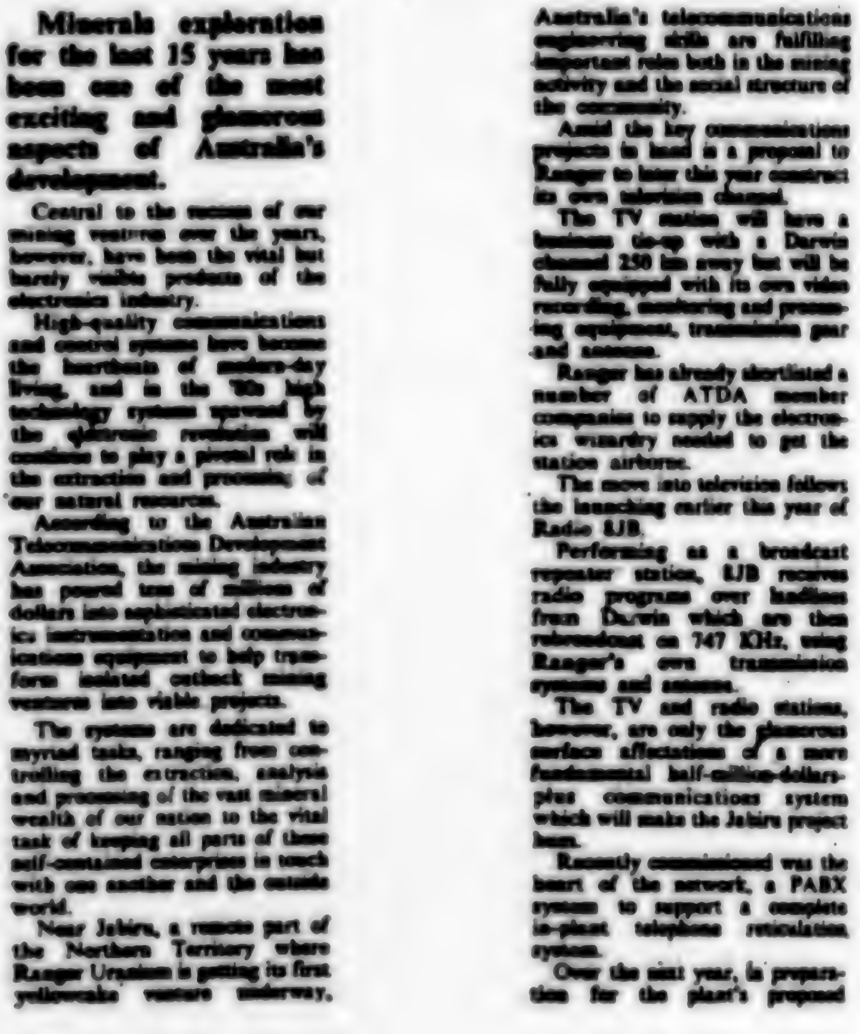
AUSTRALIA

RADIO, TV USED TO SUPPORT MINING DEVELOPMENT

Brisbane THE COURIER MAIL in English 21 Oct 80 p 26

[Article by Gunter Stephan, communication officer with the Ranger Project: "The Electronic Role Is Crucial"]

[Text]



Minerals exploration for the last 15 years has been one of the most exciting and glamorous aspects of Australia's development.

Central to the success of our mining ventures over the years, however, have been the vital but barely visible products of the electronics industry.

High-quality communications and control systems have become the heartbeats of modern-day living, and in the '80s high technology systems spawned by the electronic revolution will continue to play a pivotal role in the extraction and processing of our natural resources.

According to the Australian Telecommunications Development Association, the mining industry has poured tens of millions of dollars into sophisticated electronics instrumentation and communications equipment to help transform isolated outback mining ventures into viable projects.

The systems are dedicated to myriad tasks, ranging from controlling the extraction, analysis and processing of the vast mineral wealth of our nation to the vital task of keeping all parts of these self-contained enterprises in touch with one another and the outside world.

Near Jabiru, a remote part of the Northern Territory where Ranger Uranium is getting its first yellowcake venture underway, Australia's telecommunications engineering skills are fulfilling important roles both in the mining activity and the social structure of the community.

Amid the key communications projects in hand is a proposal to Ranger to later this year construct its own television channel.

The TV station will have a business tie-up with a Darwin channel 250 km away but will be fully equipped with its own video recording, monitoring and processing equipment, transmission gear and antenna.

Ranger has already shortlisted a number of ATDA member companies to supply the electronics wizardry needed to get the station airborne.

The move into television follows the launching earlier this year of Radio 8JB.

Performing as a broadcast repeater station, 8JB receives radio programs over landlines from Darwin which are then rebroadcast on 747 KHz, using Ranger's own transmission systems and antenna.

The TV and radio stations, however, are only the glamorous surface affectations of a more fundamental half-million-dollars-plus communications system which will make the Jabiru project hum.

Recently commissioned was the heart of the network, a PABX system to support a complete in-plant telephone reticulation system.

Over the next year, in preparation for the plant's proposed start-up date of mid-81, Ranger will go to tender for the supply of an extensive paging and communications system comprising loudspeaking and intercom units.

The system will service an ore treatment and processing plant and administrative complex 1km square.

And simple though it may sound on the surface, the unique geographic characteristics of Jabiru which let it boast the highest lighting incidence in the country and extremely high rainfall — humidity levels (they remember 14 in. in 24 hours) means that installation of the telephone cable reticulation network will require special attention particularly in the provision of lighting conductors.

The main incoming communications link to the project is a 24 channel radio bearer which connects, via a tropospheric scatter repeater station at Mountalary, to Darwin.

Ranger is in the market also, for the supply of telemetry equipment from local electronics manufacturers for remote pump control applications. The pumps will recycle waste water from the mine area into the treatment plant.

Already in operation at the site is a VHF mobile radio system consisting of three VHF talk-through repeater systems. This will be expanded to accommodate a growing fleet of mine vehicles.

In line with the ATDA policy which pursues the objective of getting government and private enterprises to capitalise fully on Australia's telecommunications skills, the Ranger philosophy is to give first preference on equipment supply to local tenderers and manufacturers.

In addition to its direct responsibilities associated with the installations of communications systems to serve the mining activities, Ranger will participate in the cost of the telephone network which will service the modern township of Jabiru.

Currently under construction, the township, when complete, will boast all the facilities of a modern city development and will eventually accommodate 3500 people.

And until the arrival of Telecom towards the end of this year, Ranger has accepted responsibility for establishing full telephone services to government departments such as health, education, police and other super-structure needs of the present temporary town.

Anticipated total cost of the Ranger venture is $300 million.

The step-by-step construction of Jabiru vividly portrays the broad economic and social commitments accepted by mining companies to the environments they administer.

It also graphically illustrates the fundamental reliance of business and society on fast, efficient communications and the importance of a viable electronics industry.

CSO: 5500

SATELLITE TELECOM SYSTEM EXPECTED BY 1984

Dacca THE BANGLADESH TIMES in English 28 Oct 80 pp 1, 8

[Text] Bangladesh will have its own telecommunication satellite by 1984, Mr. Moyeedul Islam, Minister for Post, Telegraphs and Telephones said in Dacca on Monday.

The Minister told an airport Press conference on his return from attending 6th meeting of Assembly of Parties to Intelsat Agreement in Venice, Italy that his Ministry was discussing with a number of leading organisation to put the satellite in orbit for Bangladesh.

Meanwhile, he said Government has decided to introduce satellite telecommunication system by 1982 renting part of an intelsat satellite. The intelsat has agreed to rent at nominal fee of 2 lakh dollars between 60 to 100 lines for a period of two years to introduce the system which will revolutionise the telecommunication system ensuring advanced and stable network in the country.

An expert team of the intelsat will visit Bangladesh soon to prepare within two months for approval. Under the plan a series of earth stations will be set up in the country some even at levels or below subdivisions according to necessity. This will also vastly improve the television reception.

The Minister noted that existing system that included the microwave system, was found inadequate to meet the situation and needs.

He said that the immediate need is to improve the internal telecommunication, which required concerted efforts of those concerned with it. He was hopeful that the telephone personnel would work with dedication and sincerity.

The Minister said that the international trunk dialling will also be introduced. The Government has requested the British authorities to enable the T&T Department to introduce London Sylhet trunk dialling soon. New equipment will also be procured from Britain for Barisal which often remain cut off from the rest of the country.

A German expert team will also visit to study measures to improve Dacca-Narayanganj telecommunication system.

The Minister who led a 3-member delegation said that his ministry was trying to introduce new system in the delivery of foreign money order. The system of chequing will be introduced in the post offices as part of the new programme.

CSO: 5500

CORRESPONDENT GIVES DETAILS ON APPLE SATELLITE

New Delhi PATRIOT in English 11 Sep 80 p 10

[Text] This is an apple that goes up, unlike the one that hit Newton on the head and broke up into the law gravity. Apple the satellite goes up sitting with two other satellites on top of European Space Agency's Ariane rocket from French Guiana in Latin America in February next year.

APPLE, short for Arianne Passenger Payload Experiment is totally Indian-made satellite and is a forerunner of future satellites that Indian scientists are working on to bring the country's communication system into the space age.

The 665 kg satellite leaves the space laboratories in Bangalore for France, most probably on 20th September. It will undergo tests for about two months by an international group of scientists at the European Space Agency's Toulouse headquarters and then will be transported to the launch pads in Kourou in French Guiana in Latin America from where it will be launched into space on board the third development flight (LO 3) of Arianne launch vehicle under an agreement formalised between Indian Space Research Organisation (ISRO) and the ESA.

APPLE, a geo-stationary communications satellite (which means that relative to the tracking stations on earth, it maintains an apparently stationary position in space while orbitting the earth) will form the middle component of Arianne's payload, sandwiched between French satellite METESAT and ESA's CAT.

The Indian satellite in fact has been ready since May this year after undergoing a series of intricate tests at ISRO's labs. Its departure for Toulouse, France, had to be postponed because of delays at ESA.

Latest Techniques

Using "state of the art" latest techniques like multi-layered insulation and analytical modelling, APPLE is designed to bridge the technological gap between the Indian satellites launched so far and the generation of future space objects. Indian scientists hope to acquire through it competence in the utilisation of geo-stationary orbital satellites for domestic communication, radio networks, data relay on an experimental basis.

Apart from testing its design, fabrication and its injection into orbit and its "management" while in orbit, APPLE will also take on new experiments like digital communication technology with aspects like its use in teachers training and remote area communication.

APPLE, which will weigh 665 kilogrammes at launch, will be injected into a synchronous orbit around the earth using a solid propellant booster motor which has also been developed indigenously. With its outer covers, the spacecraft looks like a cylinder 1.20 metres in diameter and just as tall.

The solar array drive, reaction control systems, sensors and momentum wheels are mounted directly on the cylinder. Once in orbit, the solar panels will garner the sun rays, convert them into electricity for use in running the systems and instruments on board.

Once the ESA rocket Arianne lifts off from Kourou, the satellite will first go into a "transfer" orbit at a distance of 200 into 35,786 km at 20 degree west over the Equator. Within 65 seconds, its companion satellites, METESAT and CAT and APPLE would have finally separated from each other.

APPLE's own control motors will now spring into action with bursts of the solid propellant firing to bring it into its ordained track across the earth.

CSO: 5500

POST AND TELEGRAPH PLANS THROUGH 1990 REPORTED

New Delhi PATRIOT in English 28 Oct 80 p 7

[Text] The P and T department has drawn up a perspective plan to provide telephone connections on demand by 1990. The Plan, which envisages a Rs. 9,600 crore investment in expanding production of exchanges and equipment has been submitted to the Planning Commission.

The department has estimated it will need about 32.6 lakh lines of local exchanges automatic switching equipment during 1980-85 and another 50.65 lakh lines during 1985-90.

Against this the P and T expects to get 10 lakh lines during the first five years and 10.74 lakh lines by 1990 from existing ITI factories. A decision is expected within a few days on foreign collaboration for the proposed 2 lakh lines of cross bar equipment plant at Rae Bareli and two factories for producing electronic switch gear equipment of five lakh lines each in the next decade.

According to the perspective plan enunciated by Communications Minister C M Stephen at the Ministry's consultative committee meeting in Bangalore recently the department plans to open 3,500 new telephone exchanges and 20,000 public call offices throughout the country.

However, it is estimated that even if the resources become available and the plans can be pushed through the waiting lists are likely to increase further to a peak of about 7 lakh lines by 1985 before the department can start catching up with them.

According to current statistics, Maharashtra circle has the longest waiting list, totaling over 1.45 lakhs at the end of 1979 with Delhi coming second with 64,345 persons still waiting for their phone.

At present 7,429 telephone exchanges are functioning all over the country with 6,147 of them automatic.

CSO: 5500

NONALINED RADIO, TV COOPERATION ADVOCATED

New Delhi PATRIOT in English 4 Nov 80 p 5

[Text] INFORMATION and Broadcasting Minister Vasant Sathe on Monday called on the more developed of non-aligned nations to make special bilateral and multi-lateral efforts to assist the less developed countries with technology in radio and TV.

Joint programmes could be undertaken to train professional and technical personnel apart from coordination in exchange of audio-visual programmes, Mr Sathe told experts from India, Sri Lanka, Yugoslavia, Algeria and Bhutan while inaugurating a seminar on "folk forms for developmental broadcasting.

The seminar has been organised as part of the first radio festival of Broadcasting Organisations of Non-Aligned Countries. Cuba is also expected to participate.

The Minister said there was need for cooperation among non-aligned countries in broadcasting to promote fuller and more comprehensive knowledge about one another.

Speaking about exchange of news material and other programmes, Mr Sathe said that apart from terrestrial links, such an exchange could also be through satellites which some non-aligned nations have or would have in the near future.

The Minister said that despite its detractors, the non-aligned movement had become a dynamic influence in worl' history. The unity of the non-aligned nations, born of their stand against imperialism and foreign hegemony, could also accelerate the process of emancipation and development of national information media as a part of their total economic, political and cultural independence and their right to inform, and be informed, objectively and directly.

Although there was need for a free flow of information, it was restricted by limitations of infrastructure and resources. Even radio frequencies and geostationary satellite orbits had been disproportionately exploited by the developed nations to the detriment of the developing.

Thanking India for hosting the festival, Mr Ahmed Malik of Algeria stressed the need for maximising exchange of radio and TV programmes between the countries of the Third World.

The Sri Lanka representative, Mr W D Amadeva paid tributes to Indian culture which he said was the cultural heritage of Asia.

Yugoslavia's Mr Dusan Dimitrov also warmly thanked India.

CSO: 5500

BRIEFS

NEW TELEPHONE LINES--President Luis Herrera Campins has inaugurated 5,600 new telephone lines in Lara, distributed as follows: 1,000 in Quibor, 1,000 in Industrial Zone No 2, 1,000 in Obelisco, 2,000 in Cabudare, 500 in Ciudad Coa, 500 in Boaca, 300 in Sonora and 300 in Siquisique.[figures as heard] These lines are part of the program being carried out by the National Telephone Company of Venezuela (CANTV), to expand its services and to provide telephones in areas which never had them, which will allow more Venezuelans to communicate better. [Excerpt] [Caracas Radio Continente Network in Spanish 2100 GMT 21 Nov 80 PA]

CSO: 5500

BOUARFA'S URBAN TELEPHONE NETWORK IS AUTOMATED

Rabat L'OPINION in French 27 Oct 80 pp 1, 3

/Article: "Automation of Bouarfa's Urban Telephone Network/

/Text/ On 22 October the urban telephone network of Bouarfa, the chief town of Figuig Province, was automated. The new installations, which were set up in this town on a temporary basis pending the total automation of the network, have a capacity of 200 lines, the current number of subscribers in Bouarfa being 140.

Work is currently under way for the automation of the network covering all the localities in South Oujda: Jerada, Bouarfa, Figuig, Tendrama, and Ain Bni Mathar.

The equipment for the exchanges for all these towns are already in place and work is under way for the construction of a road leading to Jbel Tissourine, between Jerada and Al Aouinat, where an active relay station, necessary for automating the overall interurban network, will be set up. This program will be finally achieved in the summer of 1981, at which time the inhabitants of Figuig and the surrounding area will also be able to pick up Moroccan radio and television broadcasts and programs.

In addition, the regional services of Posts and Telecommunications are undertaking a vast program in North Oujda which will consist of expanding the station in Berkane, automating Ahfir, and increasing the capacity of the Oujda-Berkane cable.

In Berkane, the construction work is 70 percent completed, and the equipment is already in place.

In Ahfir, the conduits for the cables were completed in 1979 and the automation of this town is linked to the expansion of the Berkane station.

In addition, the capacity of the cable linking Oujda to Berkane, which is currently 60 channels, will be brought to 300 as soon as possible, which, as Boufelja Attigui, head of the regional office of Posts and General Affairs, points out, will lighten the traffic from Saidia, especially in the summer.

The provincial Posts and Telecommunications services are also planning to automate the districts of Taourir and Al Aiaun (Sidi Makhoukh) in West Oujda. Proposals have been made to this end, within the framework of the 1981-1985 Five-Year Plan. The cost of automating these two towns is 4.2 and 1.2 million dirhams respectively.

It is also planned to expand the Oujda station; this will consist of strengthening its capacity, which is currently 4,000 lines. According to Mr Attigui, the number of subscribers on the waiting list is 3,700.

In addition, the Posts and Telecommunications services plan to connect the only two rural communes not yet linked to the telephone network: Al Atef and Ahl Oued Za in the Taourirt region.

11550
CSO: 5500

NEWS AGENCY OFFICIALS DISCUSS EXPANSION PLANS

LD011541 Royadh AL-JAZIRAH in Arabic 24 Nov 80 p 5

[ISLAMIC NEWS AGENCY-SAUDI NEWS AGENCY (SPA) report: "Khujah and al-Qurayshi Discuss Future of ISLAMIC NEWS AGENCY; Agency Transmits 10,000 Words Daily to 33 Countries"]

[Text] Riyadh--Dr 'Abd al-'Aziz Khujah, Information Ministry undersecretary for information affairs and chairman of the executive council of the ISLAMIC NEWS AGENCY, yesterday had talks with agency Director General Safdar 'Ali al-Qurayshi on future expansion plans for the agency.

Dr Khujah stressed the need to continue to expand the activities of the ISLAMIC NEWS AGENCY in all spheres of news area of the world, according to a well-organized stage-by-stage plan.

It is worth noting that periodic high-level meetings are held regularly in order to supervise the progress of the agency offices established in Islamic capitals. It has been decided to increase the number of offices so as to cover all Islamic capitals and all major world media centers.

The ISLAMIC NEWS AGENCY transmits for more than 9 hours daily and its daily output of approximately 10,000 words is currently received by 20 Islamic states.

The agency also transmits a special daily bulletin in Spanish to 13 American states.

CSO: 5500

BRIEFS

TELECOMMUNICATIONS STATION PROPOSAL--Luanda, 26 Nov (AFP)--The official ANGOLAN PRESS AGENCY, ANGOP, announced in Luanda on Wednesday that Angola will propose the creation of a telecommunications station to be linked with the Indian Ocean satellite during the forthcoming Coordination Conference for the Development of Southern Africa (CCDAA). The agency points out that currently in order to call Salisbury from Luanda it is necessary to pass through Europe. The Angolan telecommunications earth station which provides international communications by satellite is in fact linked to the Atlantic satellite, whereas the majority of Southern African countries are linked to the Indian Ocean satellite. Angola, Mozambique, Botswana, Tanzania and Zambia will participate in the second CCDAA, which opens in Maputo on Thursday. [Text] [AB022024 Paris AFP in French 1140 GMT 26 Nov 80]

CSO: 5500

BURUNDI

BRIEFS

EARTH SATELLITE STATION IN BUJUMBURA--The earth satellite station in Bujumbura where the equipment was installed beginning in June 1980 will soon be in operation. The only work remaining involves planting the grass and building a road to the station. There will be trial runs this week and only after INTELSAT has approved can the station begin to operate. A Ministry of Telecommunications source indicated the station would begin to function in November. Initially, it will provide a direct link with two transit countries--France (Paris) and Kenya (Nairobi) whose installations will connect with other countries. This earth satellite station is of great importance to our economy. Burundi's communications with the outside world will be facilitated because messages will be transmitted by an INTELSAT satellite system. [Text] [Bujumbura LE RENOUVEAU DU BURUNDI in French 21-22 Sep 80 p 1] 9479

CSO: 5500

PARTICIPATION IN INTERNATIONAL PRESS INSTITUTE ANNOUNCED

Victoria NATION in English 27 Oct 80 p 2

[Text]

SEYCHELLES will shortly participate in a new information service designed to provide news on economic affairs throughout the world.

The service, to be run by the International Press Institute with help from the World Bank, will be based in Africa so that it can best reflect the needs of countries in the region.

Regular news letters will be sent out by the IPI's Africa Programme, and final arrangements on their content are being made at a three-day seminar starting in Nairobi today.

A delegate from Seychelles Information Department joins senior media representatives from around a dozen African states to ensure that the news letters will be in the form regional newspapers and radio stations feel they need, rather than being something as western organisations think they should be.

The service was first proposed nearly three years ago at an IPI pan-African seminar in Nairobi, which dealt with economic and financial reporting on the continent.

Several people at that seminar made the point that there are serious gaps in their coverage of major economic affairs simply because they are often unaware of what is going on in the western centres where many of the vital decisions are made.

CSO: 5500

INAUGURATION OF EARTH SATELLITE STATION

Kinshasa ELIMA in French 28 Oct 80 pp 1,7

[Text] The state commissioner for the PTT [Posts, Telephones and Telecommunications], Citizen Tokwaulu Bolamba, went to Isiro Sunday for the official inauguration of the second and third Rezatelsat earth satellite stations for telecommunications; he was accompanied by the Haut-Zaire regional commissioner for administration, Citizen Mpambia Munanga Bekaja, a member of the MPR Central Committee, Citizen Kakule, Political Commissioner Kupa, subregional commissioner of Haut-Uele, Citizen Kasali Kalumbwa Bin Rutuku, all regional notables and many militants.

In his speech, the Rezatelsat director of the telecommunications project, Citizen Makela, noted that the Isiro earth station, another achievement of the Zairian revolution, would continue the integration of Haut-Uele into the work of national development and open new horizons in the subregion in the television, radio, telephone, telegraph and telex communications areas.

Citizen Makela pointed out that great progress had been made with the installation of an imposing communication infrastructure like Rezatelsat and asked the people and especially the technicians to safeguard attentively this national patrimony.

In turn, regional commissioner Mpambia said the inauguration of the station expressed everyone's determination to overcome the problems of inadequate infrastructure.

He stressed how important such an achievement was to forge national unity.

Henceforth, Isiro will no longer be isolated and neglected, he concluded.

After the speeches, the state commissioner cut the symbolic ribbon and visited the installations.

The ceremony was enlivened by the subregional entertainment group and local folk groups who performed under a driving rain.

Technical Information About the Station

The station is built on a surface of approximately 4,000 square meters and has:

-a parabolic antenna 14.5 meters high;

-a building for the telecommunications equipment and two television transmitters, each having a power of one kw;

-a power plant with three generators giving the station reliable energy and great autonomy from the public power sector.

9479
CSO: 5500

FIRM TO PRODUCE JAPANESE EQUIPMENT

Lusaka TIMES OF ZAMBIA in English 20 Nov 80 p 5

[Text]

ITT Supersonic Zambia Limited is to start producing national electronic equipment from Japan under licence, President Kaunda was informed yesterday.

Negotiations between ITT and National Panasonic Radio company aimed at establishing the joint venture have reached an advanced stage and a technical agreement is expected to be signed soon.

ITT general manager Mr Krishna Venkateswaran, said this at State House when he presented Dr Kaunda with an ITT colour television set and a National VHS video cassette recorder.

Mr Venkateswaran was accompanied by two officials from National, the company supervisor for overseas operations Mr Katsuo Chiba and its regional representative for East and Central Africa Mr Toshi Bami.

The ITT chief informed Dr Kaunda that the company was working on an ambitious programme under which a new range of electrical products would be introduced in Zambia.

"National, who are now ready to work with us, will transfer technology to Zambia which will see us go into production of consumer goods like fans and we have the potential to do this," he said.

Ideal

The company was also looking into the possibility of making rural radio sets which would be ideal for use in the "lima" programme.

In reply, President Kaunda said people who thought capitalism could not work hand in hand with socialism were wrong.

He was happy to hear that National was coming to Zambia because this was a practical interpretation of the transfer of technology from the developed world to the developing one.

"We would like to see National introducing more activities into Zambia as well as bringing in more capital investment," Dr Kaunda said.

He said Zambia's socialist principles called for honesty of purpose and that when the Party and its Government made promises to private enterprise, they meant to keep those made in the past and the ones they would make in future.

"We cannot break our promises, those who think socialism and private enterprise cannot go hand in hand are mistaken because the two can work together," he told the businessmen.

He said there was something in Japanese capitalism which Zambia could learn because it had certain aspects of socialism.

He told the Japanese that when they bring knowhow to Zambia, they should bring their management skills and style.

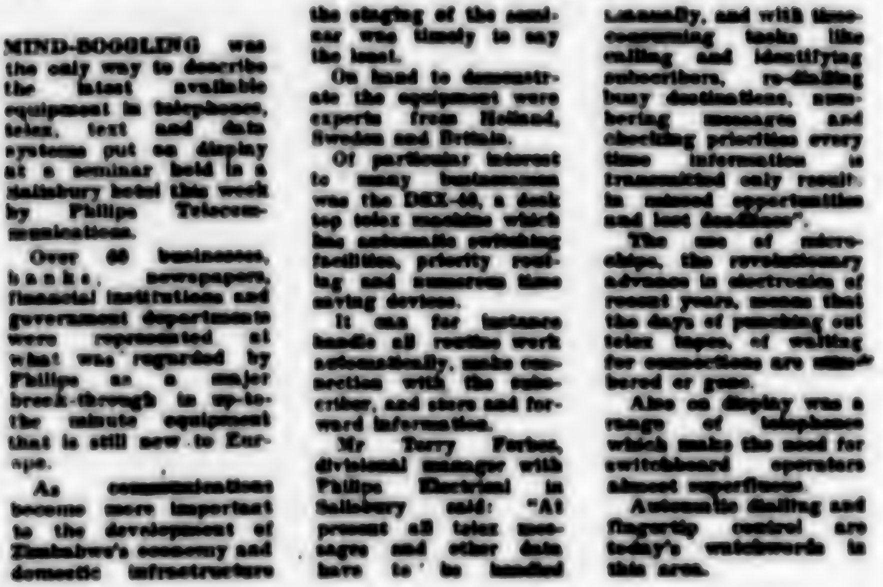
The President was happy that ITT planned to produce village radios which would be of great importance in the "lima" programme.

CSO: 5500

COMMUNICATIONS, COMPUTER SEMINAR HELD

Salisbury BUSINESS HERALD in English 20 Nov 80 p 1

[Text]



MIND-BOGGLING was the only way to describe the latest available equipment in telephones, telex, text and data systems put on display at a seminar held in a Salisbury hotel this week by Philips Telecommunications.

Over 60 businesses, banks, newspapers, financial institutions and government departments were represented at what was regarded by Philips as a major break-through in up-to-the minute equipment that is still new to Europe.

As communications become more important to the development of Zimbabwe's economy and domestic infrastructure the staging of the seminar was timely to say the least.

On hand to demonstrate the equipment were experts from Holland, Sweden and Britain.

Of particular interest to many businessmen was the DSX-40, a desk top telex machine which has automatic switching facilities, priority routing and numerous time saving devices.

It can for instance handle all routine work automatically, make connection with the subscriber, and store and forward information.

Mr Terry Forbes, divisional manager with Philips Electrical in Salisbury said: "At present all telex messages and other data have to be handled manually, and with time-consuming tasks like calling and identifying subscribers, re-dialling busy destinations, numbering messages and checking priorities every time information is transmitted only results in missed opportunities and lost deadlines".

The use of micro-chips, the revolutionary advance in electronics of recent years, means that the days of punching out telex tapes, of waiting for connections are numbered or gone.

Also on display was a range of telephones which make the need for switchboard operators almost superfluous.

Automatic dialling and fingertip control are today's watchwords in this area.

CSO: 5500

BRIEFS

BANK COMPUTER CONTRACT—The Standard Bank has contracted to buy just over half a million dollars' worth of computer equipment and programming from International Computers Central Africa Limited. In a signing ceremony attended by ICL's visiting deputy chairman, Arthur Humphreys, CBE, a contract calling for the supply of four ME29 computers was formalised. The ME29 is ICL's newest mid-range unit and is now one of the fastest-selling computers of its size in the world, with over 600 orders since its launch early in 1980. The Standard Bank will use the computers to assist general accounting and administrative functions at its Bulawayo and Salisbury branches, and to complement existing ICL 1900 equipment. Signing the contract on behalf of the Standard Bank, assistant general manager Mr. 'Sandy' Potter commented that the agreement covered the updating of some of the existing equipment as well as the supply of the new ME29s. [Text] [Salisbury THE HERALD in English 20 Nov 80 p 5]

CSO: 5500

DISCORD DELAYS FRANCO-GERMAN TV SATELLITE PROGRAM

Hamburg DER SPIEGEL in German 3 Nov 80 pp 52-55

> [Text] Quarrels about construction and financing of the first German TV satellite: Bonn and the industry are blaming each other for the foreseeable delay in starting.

The official from the Ministry for Research in Bonn was angry. Constructors and producers in the West German space industry, he demanded at a satellite conference in Munich, should finally present a fixed price; they had in any case "already exceeded" the deadline "by just a little."

The fixed price bid referred to was for an earth satellite, scheduled for launching in 1983/84, which will transmit television programs to the FRG from space. With his reminder two weeks ago, Secretary Wolfgang Finke of the Ministry for Research and Technology surprised not only the participants in the conference--technicians, scientists and media experts--but the satellite manufacturers themselves.

For their part, they have long been annoyed with Finke and Bonn for what they see as obstructive political planning for the so-called direct satellite, which in future will broadcast TV directly to house antennas across the entire country. Previous TV satellites always sent only a directional signal from one broadcasting station to one receiving station on earth.

"We've been going in circles for two years," complains one principal constructor from southern Germany. The launch deadline originally set for the beginning of 1983 is "only a fantasy," and even the countdown that is now planned for the subsequent year's end is "scarcely achievable"--quite apart from the fact that Bonn has "sacrificed hundreds of millions of marks on the altar of Franco-German friendship."

Industry criticism is directed at a Franco-German treaty for the joint construction of a satellite--an agreement which had been reached between Chancellor Helmut Schmidt and President Giscard d'Estaing and signed last April by the departmental ministers. This treaty on technical-industrial cooperation starts with rigid contractual quotas for both sides instead of the actual state of development of satellite technology in both countries. As a consequence, constructors at Messerschmitt-Boelkow-Blohm (MBB), for example, had to "shelve" a solar generator of hitherto unequalled performance developed over five years, the French were promised the production contract and "started more or less from scratch," according to one engineer involved.

Similarly, the construction of the housing, the so-called satellite structure, was transferred to the French national company Snias. Of late the Thomson CSF company in Paris has been trying to acquire the contract for the satellite's amplifying valves, although it can match the two types developed by AEG-Telefunken over 10 years (260 and 450 watts per TV channel) only "with a certain time delay and at the lower limit of performance," as even Finke admits.

By skillfully exploiting the political problems of the media in their own country, the French politicians had won piecemeal bargaining concessions from their friends in Bonn on the direct satellite, with its lucrative export potential. In return, they generously granted the promise that Bonn sought, not to make available a channel on the French satellite which Radio Luxembourg had wanted in order to broadcast a commercial TV program in the FRG.

The first step is the launching of an identical satellite for each country with three channels, using the European Ariadne rocket, in which the French have by far the greatest share of development work. German manufacturers have been promised a 54-percent share in the actual construction of the satellite, compared with 46 percent for their French partners.

Production partners from both countries are watching with distrust a tendency on both sides to make low cost estimates, obviously with a view to increasing real costs drastically and thus increasing their own nation's percentage share of the payments. All the French officials arrived a long time ago at the two-country directorate for the satellite contract in Munich, Bonn, on the other hand, is dilatory in sending its representatives. One German involved in the project suspects that the French would, if possible, "fake us out again with their administrative craft during the allotment talks."

In order to prevent subsequent adjustments Bonn and Paris are insisting on a common fixed price bid from the companies responsible, MBB and AEG in Germany and Snias and Thomson in France. But even the bid that is due soon, the third already for MBB, will probably contain flexibility clauses.

Finke wants to stand firm: "The industry must fulfill the conditions or give up the project." Even the program's critics give credit to officials in Bonn that it has not died long ago.

It was only through their Franco-German community concept that the secretary and his minister, Volker Hauff, succeeded in undercutting considerable resistance among the Social Democrats to the TV-SAT, as it is called, from the party leadership to the chancellor's office.

The reasons for political obstacles of this kind lie in the possibilities of the program. After a test period of about three years, the initial three-channel type (Type "D3") will be followed by a fully operational second TV satellite with five channels. This one, the "D5," has space for the ARD, the ZDF and a radio channel for full coverage of the country; until now about three percent of West German households have been unable to receive television transmissions because they are in the shadow of mountains or high-rise buildings. In addition, the five-channel satellite could broadcast a new European program as well as the first West German private television.

The SPD and the unions have so far not been receptive to the idea of a private TV channel, because they believe, as the Social Democratic media professor, Ulrich Lohmar, said openly in his lecture at the Munich conference on satellites, that "only through the publicly licensed media" do they have "a chance for cooperation" from radio and television. Mainly it is because they have for years felt themselves so under attack by the private media power of newspaper publisher Axel Springer, who has long waited for his television premiere, that they do not trust even the political pluralism mandated by the Constitutional Court for private television.

Not until the Franco-German agreement was the possibility of exporting their transmitters in the sky opened up to the satellite manufacturers, who have not the slightest interest in arguments about programming. Emerging nations without a fully developed broadcasting network are just waiting to turn their inhabitants in the jungles and deserts into instant television recipients with the satellite.

But before interested parties like China or the Arab League complete an order form or sign a cooperation treaty, "they want to see the thing fly and know that it does work," as MBB development head Dietrich Koelle puts it.

If the TV-SAT should be completed one day in spite of all obstacles, there is still one more risky start for those behind the venture. Of four previous launches of the European Ariadne rocket, three have ended in mishaps. Once the rocket crashed and twice it never even got off the ground.

9581
CSO: 5500

NEW CB RADIO REGULATIONS CAUSE FUROR

Hamburg DER SPIEGEL in German 10 Nov 80 pp 90-96

[Article: "Secret Beep"]

> [Excerpt] Approximately 2.5 million West German hobby radio operators are expecting troubles. In the opinion of experts, the new regulations by Bonn's minister for transport, post and telecommunications represent "the craziest idea the world has ever seen in this area."

West Germany's leisure-time radio operators are furious and their reactions are becoming obnoxious to the reform which is to go into effect at the beginning of next year and which Gscheidle calls progress. CB radio traffic is to be expanded by 10 channels to a total of 22 channels and to be converted step by step from amplitude modulation (AM) to frequency modulation (FM); in addition, the Ministry for Post wants to shift CB radio from the 27-megacycle area to the 900-megacycle area over a specified period of time.

Radio operators are afraid that each of the two reform stages will force West German CB enthusiasts to buy new equipment. According to the magazine FUNK, the beneficiary is "a 'holy alliance' between industry and the Ministry for Post."

As a matter of fact, a radio fan who in recent years spent between DM 200 and DM 1,500 for one of the traditional 12-channel AM stations will in the future not be able to exchange a single word with anyone who is going to buy one of the new 22-channel FM sets next year. And: If, as planned, after 1985 CB radio will be operated on 900 megacycles, it will again be necessary to buy new equipment--in spite of the fact that technical conditions will not be any better at all.

The trade journal CB RADIO suspects that in 1985, using the assigned frequencies, people will be able to "send messages around the corner": "A bush drum would be almost as efficient." In a glossary the magazine recommended to its readers that it would be better "to buy a good flashlight and to learn the Morse code."

Radio operators have become so embittered that even political parties and parliaments are now getting involved. CB radio, which was licensed in July 1975 and subsequently regarded by politicians as a rather scurrilous pastime for motorists and pensioners, students and housewives and derided because of its strange coded language ("Asterix is QRV for Quasimodo"), has become a political issue.

According to estimates by those knowledgeable in the business, the number of West German CB radio operators has in the meantime risen to 2.5 million people. For months radio operators have been threatening everywhere with protest actions and a "march on Bonn," and CB associations have been bombarding the Petitions Committee, [illegible]'s Ministry for Post and the Chancellor's Office with angry letters containing thousands of signatures.

Bonn's FDP fraction promptly called a hobby radio hearing, in May CDU and CSU insisted on a CB debate in the Bundestag discussing a proposal for "better conditions for CB radio" and even the European Parliament, in answer to a German request, took up the issue of "radio communication systems of small capacities," as they are officially called.

Apparently, post office administrators and private radio operators agree only on one point: The conditions are miserable on current CB frequencies, which professionals contemptuously call "scrap band."

Ordinary radio operation in the 27-megacycle area faces interference from high-frequency generators, furnaces and welding equipment in industry, as well as from medical equipment and under certain ionospheric conditions from foreign transmitters. "Frequently," CB practioners lament, "one can hear all kinds of scraping sounds and nonsensical talk from Italy but not one's partner."

In addition, the CB channels that have been licensed so far--within a transmission range only one person is permitted to speak at any time--are hopelessly overloaded in congested areas; as a consequence, an extended conversation over a few kilometers can only rarely be arranged. "The chaos of the 12 channels," in the opinion of the Commodities Testing Foundation, "makes it almost impossible to carry on a normal conversation."

In the process, prices "fell precipitously" in recent years, according to a Hamburg dealer. Large electronics enterprises, for instance, Grundig and Blaupunkt, Saba and ITT, have withdrawn from the German CB market.

Pastime radio operation has also become a nuisance for many non-radio-operators. Because most of the CB fanatics want to drown out the competition, they do not stick to the authorized transmitting power of 0.5 watts, but they operate illegal imported equipment or "afterburners," which multiply the output many times and produce electronic environmental pollution.

The consequences are felt by unsuspecting neighbors. As if moved by the hands of ghosts, remote-control garage doors are opening at many locations; mysterious diagonal stripes are appearing on TV screens; sentences can suddenly be heard on house organs and radios, for instance, "Bismarck, come in for Rollmops" or "Lugano has his trousers open."

There is no shortage when it comes to suggestions by CB associations for the reform of hobby radio operators. For a long time ordinary operators have expressed the desire to be granted the same privileges as are currently enjoyed by amateur radio operators who are licensed by the state: A multitude of frequencies, the use of directional antennas, powerful transmitters and permission to communicate also from one fixed station to another fixed station and from one country to another one.

The minister for post, however, is resisting such requests because they could "not be realized within the framework of CB operations," particularly on account of a general frequency shortage. Anyone who wants to make long-distance calls should use the telephone or get an amateur radio license, for which the conditions of admission have recently been "considerably simplified."

The Ministry for Post wants to bring order into the CB mess by making technical changes. The ministry announced that the change from AM to FM "is significantly reducing interferences with radio and television equipment." We will have to put up with the fact that during a transitional period two noncompatible types of CB equipment will exist side by side--particularly since the new mode of operation offers better connections. Berndt Sieverts, business manager of the Hessian radio firm "dnt," confirms that FM communication "approaches the quality of taxi radio."

Experts, on the other hand, expect only disadvantages from the temporary shift of hobby radio operation to 900 megacycles. At the request of the ederal government, this frequency was reserved for ordinary radio oepration last year during the Geneva Wave Conference. Experts consider it "extremely critical" (Sieverts).

Banning CB radio to 900 megacycles, for instance, would drastically reduce the transmission range--the same power of operation would only achieve "approximately one-third of the present performance," is the estimate of Werner Dollinger, CSU telecommunications expert and former minister for post.

Reinhard Richter, a radio equipment dealer in Hannover, says, "The few experts are absolutely horrified." Because of strong shadows, transmissions over the authorized frequencies would be received, "alternating as loud roars and inaudible sounds." CB RADIO is informing its readers that, essentially, when using the "quasi-optical" 900-megacycle area, one would not be able to radio any farther than one could see:

"The only person who would have any chance at all would be someone on a mountain top or the top floor of a skyscraper. Mobil radio would no longer be possible. Let us assume you are on level ground (we don't even want to mention mountains), on a straight road, and suddenly a tractor-trailer moves between you and your CB partner. That is the end of it!"

The disadvantages of the 900-megacycle operation could possible be compensated by adding technical attachments--but, in dnt-Sieverts opinion, it "would not be cheap." CSU-Dollinger estimates that equipment for the provided frequencies would cost "approximately DM 2,000."

Bad times are in store for all those who own stationary equipment. Post office officials have disliked home radio operators for a long time. Because they are equipped with comparatively powerful aerial antennas, in many areas fixed stations are blocking the channels with dialogs lasting for hours or with regular rounds of small talk; because of the wireless long-distance conversations, the Ministry for Post is also losing revenues from telephone fees.

To keep down the number of stationary installations, the ministry has to date permitted operation only by license and an annual fee of DM 180 (mobil radio operation, on the other hand, requires no licenses or fee) and conversations between fixed stations are expressly forbidden.

To date Gscheidle's telecommunications inspectors have not been able to enforce compliance with this ban. The small number of radio operation inspectors (CB jargon: "Yellow Peril") driving cars with directional devices cannot distinguish very well when looking at their monitors whether the constantly changing fantasy names among hobby friends from "Maja the Bee" to the"green lightning from Buxtehude" represent at any time a fixed or a mobile station.

To catch violators of fixed-radio operation regulations, Bonn's telecommunications bureaucrats concocted a technical chicanery which according to the original plan was to become a required component of all CB stations beginning in 1981: A built-in "identification signal"; it transmits automatically a coded multiple-sound signal to betray to the inspectors the license number of the station.

But Bonn's post office administrators were not able to get political approval for the identification signal that they favored so much. Parliamentarians of all parties criticized the fact that such additional equipment would almost double the cost of simple sets.

To be able to prevent radio communication between fixed stations in spite of it, the Ministry for Post in recent months developed a procedure which is unique worldwide. According to a guideline issued by the telecommunications central exchange (FTZ), in the future only those fixed CB stations are to be sold and serviced which emit an inaudible "pilot sound" (90 cycles) that automatically tunes out all fixed stations that are operated on the same channel within the transmitting range.

Something which post officials apparently consider a patent solution, is looked upon by independent experts as "the craziest thing the world has ever seen in this area." Richter, Hannover's expert, formulates it this way: "The Ministry for Post is inviting international ridicule."

Describing the consequences of the pilot-tone regulation, Richter said, "When someone depresses the transmitting key of his station, he can silence all the fixed stations in his town. Even if a fixed station is operating quite legally with a mobile station, the touch of the button of a third party is sufficient to interrupt the connection immediately."

Sieverts, dnt-manager, is also expecting the worst: "Whoever touches a key in the future will silence everything within a radius of 50 km." Many of those who will be affected by the inaudible pilot tone from afar, which will tune out their own transmission and reception equipment, probably will subsequently contact the manufacturer and complain about the imagined defective sets.

According to Peter Weber, a manufacturer and importer in Duesseldorf, pensioners and the handicapped, for whom CB home radio sets represent the most important contact with the outside world, will "no longer enjoy themselves when they cannot talk with other fixed stations. As far as they are concerned, CB radio has lost its appeal."

Experts feel that the regulation with the secret beep is so absurd that it seems questionable whether on the appointed date, New Year's Day 1981, CB stations with pilot tones will be available at all from West German dealers. Last week, during a meeting in Frankfurt, representatives of all well-known West German CB firms protested against the "curiosity"; unanimously they urged the Ministry for Post to come up with "a solution which is kind to consumers."

"At any rate," dnt-man Sieverts says, "we will not market a single new fixed station as long as this guideline remains in effect."

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FRANCE

NEED FOR COMPUTER SECURITY MEASURES SEEN INCREASING

Paris L'USINE NOUVELLE in French 8 Nov 80 p 102

[Article by Daniel Lacotte: "Security--The Computer Takes Fright"]

> [Text] "White-collar vandalism" is gaining ground in France. In the United States, swindles totaled $300 million in 1979. In view of the proliferation of computers and networks, how can protection be provided for the data in them?

The various outrages perpetrated against the Computer (with a capital C) since the beginning of the year will at least have had the merit of making people aware of the problems in protection of data-processing centers. And the proliferation of computers in distributed data-processing (networks) and in the form of small autonomous machines really aggravates matters. For from the small or medium-size provincial firm--which deals with data that are both routine and strategic for it (pay, invoicing, inventory, customer data)--to the computer cnter of the Ministry of Defense or that of Social Security, protection of information is becoming a necessity.

Today, every user of a computer can feel threatened. Not only by particularly violent acts of terrorism (bombs, arson) but also, and especially, by more discreet forms of action that are propagating rapidly. Even a kind of "white-collar vandalism" is taking on disturbing proportions: everyone still remembers the story of the consultant to a big American bank who, by a trick involving electronic transfer of funds, succeeded in putting $10 million into his own account!

For the year 1979 alone, computer crime reached $300 million in the United States. In France, no one can give any figures. It must be said that specialists in security are rare: only one service company (the SEGESI [expansion unknown]) has decided to go into this field. Its boss, Pierre Leroy, is perfectly well aware of the difficulty of his task. To be sure, a security plan would in theory be needed for every computer installed, "but this notion disturbs the data-processing specialists; they feel themselves to be the masters of a system and take a dim view of the arrival of an adviser from the outside, who may challenge the little habits and the organization." Simply for a case in which.... "In reality, the security of a computer center is the business of the general management," Pierre Leroy adds. This amounts to protection that is nearly always insufficient, for awareness of the risks has taken time to develop. Thus, in every data-processing installation the proportion of the investment devoted to security should be 20 to 25 percent. But we are very far from such a ratio."

The protection of a data-processing center can be approached from three different angles, each of which may be sufficient. In certain cases, though, all three types of action may have to be put into effect.

The first mode of security consists in physical protection of the installations by providing them with prevention and detection means aginst the risks of destruction: fire, water damage, sabotage. Pierre Leroy explains that even in this area, protection is very deficient: "Certain firms may forearm themselves against the physical risks, but they forget that a protection system never functions 100 percent. Thus, when damage occurs, one realizes that no continuity plan has been provided for! The computer is destroyed and computing stops." But in the last 5 years, there have been 50 data-processing center fires in France. And in 35 percent of the cases, they were due to criminal action.

The second type of measure possible has to do with protection of confidential or secret information. The entire difficulty consists in identifying the confidentiality needs, for very often, there are only certain data whose divulgation must be prevented. It then remains to establish access restrictions in function of the degree of confidentiality of these data. In theory, there is nothing very tricky about "isolating" secret information by logical or material means; but in practice, "varileaks, due to inevitable gaps in the organization of work, still exist," it is stressed at the SEGESI.

Deterrence Does Not Always Suffice

Finally, the third aspect of computer security (probably the most complex to put into effect) is protection of the integrity of the data and of the processing of it. What is involved here for the user is to take precautions against the risk of errors or frauds relating to the data or the programs, the risks of falsification or destruction of information, the risks connected with deficiency of control procedures, etc. To do this properly, one must make use of the various data-processing information methods: badges, cryptics, sophisticated codes, etc. Here too, all the principles are known, but the great difficulty lies in getting them accepted in practice.

In any case, one must not lose sight of the fact despite everything, even the most sophisticated precautions will have only a deterrent value. In fact (and even the SEGESI readily acknowledges this), "especially, one must not try to protect everything."

In other words, security--even the best-designed security--cannot replace the insurers! And if the data-processing centers are protecting themselves better and better, it is essentially in order to avoid or minimize the interruptions in processing and ensure resumption of operations in case of calamity. This also proves that the economy's dependence on data-processing is no longer negligible.

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